

RECEIVED

FEB 1 1 2002

TECH CENTER 1600/2900

PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/622,745A

DATE: 07/15/2001

TIME: 18:53:02

Input Set : A:\SEQ. LISTING 0633 H 2174-1 WO.txt

Output Set: N:\CRF3\07152001\I622745A.raw

ENTERED

```

6 <110> APPLICANT: AstraZeneca AB
8 <120> TITLE OF INVENTION: New methods
10 <130> FILE REFERENCE: 1103326-0633 / H 2174-1 WO
12 <140> CURRENT APPLICATION NUMBER: US 09/622,745A
13 <141> CURRENT FILING DATE: 2000-08-22
15 <150> PRIOR APPLICATION NUMBER: PCT/SE00/00878
16 <151> PRIOR FILING DATE: 2000-05-04
18 <160> NUMBER OF SEQ ID NOS: 2
20 <170> SOFTWARE: PatentIn Ver. 2.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 3903
24 <212> TYPE: DNA
25 <213> ORGANISM: Homo sapiens
27 <220> FEATURE:
28 <221> NAME/KEY: GC_signal
29 <222> LOCATION: Complement((3009)..(3016))
31 <220> FEATURE:
32 <221> NAME/KEY: GC_signal
33 <222> LOCATION: (3037)..(3044)
35 <220> FEATURE:
36 <221> NAME/KEY: GC_signal
37 <222> LOCATION: Complement((3116)..(3123))
39 <220> FEATURE:
40 <221> NAME/KEY: misc_signal
41 <222> LOCATION: (1497)..(1503)
42 <223> OTHER INFORMATION: Pla
44 <400> SEQUENCE: 1
45 gatcatatta atttgaaggt ggcggggcag gatggttctg tgggtgcagtt taagattaag 60
46 aggcatacac cacttagtaa actaatgaaa gcctattgtg aacgacaggg attgtcaatg 120
47 aggcagatca gattccgatt cgacggggcaa ccaatgaaac agacacacct gcacagttgg 180
48 aaatggagga tgaagataca attgatgtgt tccaacagca gacggggaggt gtctactgaa 240
49 aagggaacct gcttctttac tccagaactc tgttctttaa agaccaagat tacattctca 300
50 attagaaaac tgcaatttgc ttccaccaca tcttgactac taccgtatag tttctctat 360
51 tctttcattt ccccttccc cattccttta ctgtacataa agtaactggt atatgtgcac 420
52 aagcatatta cttttttttt ttaaaactaa acagccaatg gtatgttttg attgacatca 480
53 agtggagacg ggggggaaaa tactgattct gtgaaaatac cccctttctc cattagtggc 540
54 atgctcattc agctcttctc tttatattcc agtaagttat tttgctctca ctgttttaac 600
55 aacaacaaca aaaaaacaac aacataaaaa tcccttgcata ccttggttcaa ttggagaatt 660
56 ttaatgtttt tcatttatca ttgtaaaacc aaggacaatt ttataacttt tttgtactta 720
57 gctgttacat gcagagcaat ctgtctttaa gtagggataa attactctaa aacaaaaaag 780
58 aatcctagat agttttccct tcaagtcaag cgtcttggtg ttttaataaa cttcttggtt 840
59 aaaaaaaaaa aaagtaaaaa agaaaagtta tgcaacaatt aatggcccag aggcaatcct 900
60 tgttaacatt ttgatgcac ttttagctgt tttttttttt tttttttttt ttgactgagt 960
61 ttgactcttg tcaccaggc tgaagtgcac tggcatggca tgatcttggc tcactgcaac 1020
62 ctccgctcc cggtttcaag tgattctcct gcctcagcct cctgagtagc taggattacg 1080
63 ggcattgcac accatgcctg gctaattttg tatttttagt agagttgggg cttctccaca 1140
64 ctggtcaggc tggctctgaa ctcccaacct caggtgataa gggaaggggc actattgaca 1200

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/622,745A

DATE: 07/15/2001

TIME: 18:53:02

Input Set : A:\SEQ. LISTING 0633 H 2174-1 WO.txt

Output Set: N:\CRF3\07152001\I622745A.raw

```

65 tttatggttg gggcagaggt gtaagatatt cttcaaagca ctacctacat gttgaagaat 1260
66 tgttctctac ccagattctc aaaagtcccc caggacattc acgtagttaa aacctgtgtt 1320
67 taattatctg agcctataac ttaatacagt tttaaaattt ttttttaaat atacagttaa 1380
68 ctttctagga atgcaattat agttgtgtgt aaaattaggg aaaattaact ttgctaccaa 1440
69 gagttgttca acattttgtt aaatcacttc attgatggca acatgctgga ggtagttgag 1500
70 tcaccaactc agcacctgga tcagcctgtg ttggtagcag tttcatcccc gtggttctgt 1560
71 gaataggttg aagcatctgc ttactccatc aggacttota gggtagtcgg gccttggcac 1620
72 tcacacatta aaatactgtt tatgttattt tattgcaagt tacttttctt tcatttcccc 1680
73 tttacgttac agaaagggaa gcattttgct ttctgtttta agttgtgtat gtaggtaggt 1740
74 tatatcatct awgactttct ctccctcctt ccttttcttt ttgtttgaga tggagtcttg 1800
75 ctctgtcacc caggctggag tgcagtgggt cgatcttggc tcaactgcaac ctctgcctcc 1860
76 cgggttcaag cgattctggt gtctcagctg ggattacagg cgcacaccat cacaccacgc 1920
77 taatttttct atttttagta gagatggggg ttgcctatgc tggccaggcc aggctggtct 1980
78 caaactcctg agctcaagtg atcagtcctc ctgcgcctcc caaagttctg ggatttcagg 2040
79 cgtgagcctc atctatgaat ctcaatttag gacagtaaaa gtgtcattac aaaaatattt 2100
80 attgtaaaaa agggttgag gttgagaatc tcaattctag tcagtctctc agtgtttggt 2160
81 ttcttctac cattttccc cctaggacca gccagaaagc agcttttttt ttgtcccccc 2220
82 caacaaggag cccactgttt cctctcccag cccaaactca ggcctacgaa caacaacagc 2280
83 actacacaca cacacacaca cacacacaca caccctcca cttcaagga 2340
84 tagccaagag cttctggagc cgtcaaaaag gtctgtacct gctgtcttta gagcttcag 2400
85 tttgcccttg gtcaagaaat actgtttgct aggtctgtct ggagtacatc aggttaact 2460
86 ggcttctaaa ccacctgag gttcttttct cttgtccttt tactcccttc gtacttcaat 2520
87 ttctctcctt gatgtcccc tccctgtttt gttttttgct tccaatccgt tctgcgcgtt 2580
88 cctgcagag caggcgagta gcaatgctgc tggaccatgg agctgtctta gtctcccaga 2640
89 aatctcttct acaccaaac cttcttgctc ttaggtgggt ctcagtcctc ctccccacc 2700
90 tccttctgac ccaggcttct ttctgcctc cgggtgcag ttctcctggg catctgcctc 2760
91 tgcctctctc ctctcaccgc gatctagggc tgccttctct ttgtgcagcc gtctttctcc 2820
92 accttcatcc cagactccct gtctcagcgc cagctcctct gcctttggtt cgggttccct 2880
93 ctccccacc ccagcttcca gttgttttgc ccgcaggctc ctgcgcagtg accggcgccc 2940
94 ccgcagagt gcgtgtgac cagggcacct cctctctccc cactctcag cccgcgcct 3000
95 ctccaccgcc cgccccaccg cgtgttgggc ggtccagggc ggggctggga tccggggcgg 3060
96 ctccggggc tcgggtgtg ggaggcgccc tctccccgtt ctccccctct cttccccccg 3120
97 cctgccttc ccttgaccc tcttcttccc ctccgcccgg gagctctccc tggtecccg 3180
98 cgccgctcc ttcctcccg gctccccgt ccccgctccc gtggctgccc ccgccccggg 3240
99 gaagaagaga cagggttggg gtttggggga agcgagagag gagggagag accctggcca 3300
100 ggctggagcc tggattcgag gggaggagg acgggaggag gaaaaagtg gaggagaagg 3360
101 gaggggggag cggggaggag cggccggggc tggggccttg aggccggggg agagccgggg 3420
102 agccggggcc gcgcgcgag gtaagagcca gggccccggg ttagcagggc tcggagaggg 3480
103 ggcgcgcggc gtggtggggg agggggcagt gggcgaggg cccagctggg ggaagcgggg 3540
104 ctgggggaga ggaggaaccg cggggatgga atcggggagc gctgaggcgg ccgatgccgg 3600
105 gagcgtgggt aagccaggct tctgcgagcc gcgggggccc ggggagagga ggtggtgaga 3660
106 ggtggagtcc gggagggtt ggggccgagg gaggcaggag gaggtgggg acaggctttc 3720
107 tctcctctc tccccacc ccgcgcggg ctccgcccc gcctcctccg cggggcgctc 3780
108 tcttggccc caggctgagc ccggtcggg cctgcgagc aaccggcaag aggtcgagta 3840
109 gtctccgggt gcgggcgcg ccggcggggc tcggtccagt cctcatggcc gcctctcact 3900
110 tag 3903
118 <210> SEQ ID NO: 2
119 <211> LENGTH: 4594
120 <212> TYPE: DNA

```

RAW SEQUENCE LISTING

DATE: 07/15/2001

PATENT APPLICATION: US/09/622,745A

TIME: 18:53:02

Input Set : A:\SEQ. LISTING 0633 H 2174-1 WO.txt

Output Set: N:\CRF3\07152001\I622745A.raw

```

121 <213> ORGANISM: Homo sapiens
123 <220> FEATURE:
124 <221> NAME/KEY: GC_signal
125 <222> LOCATION: Complement((4080)..(4087))
127 <220> FEATURE:
128 <221> NAME/KEY: GC_signal
129 <222> LOCATION: Complement((4196)..(4205))
131 <220> FEATURE:
132 <221> NAME/KEY: GC_signal
133 <222> LOCATION: Complement((4241)..(4249))
135 <220> FEATURE:
136 <221> NAME/KEY: GC_signal
137 <222> LOCATION: Complement((4272)..(4279))
139 <220> FEATURE:
140 <221> NAME/KEY: misc_binding
141 <222> LOCATION: (3844)..(3851)
142 <223> OTHER INFORMATION: AP-2
144 <220> FEATURE:
145 <221> NAME/KEY: misc_binding
146 <222> LOCATION: (4308)..(4315)
147 <223> OTHER INFORMATION: CRE
149 <220> FEATURE:
150 <221> NAME/KEY: misc_binding
151 <222> LOCATION: (4375)..(4381)
152 <223> OTHER INFORMATION: Initiator
154 <400> SEQUENCE: 2
155 atgttgctgc tgctgctact ggcgccactc ttcctccgcc ccccgggcgc gggcggggcg 60
156 cagacccccca acgccacctc agaaggtgca tccttcttcg acgacctccg gccctccttc 120
157 gctccacttc cctttccctg catctcctca tttctggtcc tcactactat cccatcagtc 180
158 ccacatatca tcccggctcg gcaacccctt ctgctcggcc cgactttact actgctgacc 240
159 tccttctgtc accccacggt actatccagc acctcttttc tctgccaca ttgctacact 300
160 ataccacctt cctgtgcatt ttctccgect caatccctt tccagcccc acattactac 360
161 ctcaattact cctttttctt ggtcccactt tgctgtccag atgatcttat tagcctccct 420
162 ttatcctoct atcctaattc aactggaata tcctcattta gccttttttt tttaagaaaa 480
163 gctccaccca catatcatac ccttcatgat ttcttaatta cttttctttc ttacctccac 540
164 ccagcacctt tccctcccca cttgtgggtt ctctcatcag ctttaacctt ggccctttac 600
165 tctctgtcct ttagccaggg gatctgtacc tgtccccact cccacctctt agtgccccat 660
166 cctcttctct ctgtccccag cctgccaca gaccacgcc tactctcccc ttctccccc 720
167 tggggagcct gccttttctt ctttccacc attcctctct gtatgcctcc ccgactcacc 780
168 ccttaggttg ccagatcata caccgcctt gggaagggg catcaggtag cggggcctga 840
169 ctogggacca ggtgaaggct atcaacttcc tgccagtgga ctatgagatt gagtatgtgt 900
170 gccgggggga gcgcgaggtg gtggggccca aggtccgcaa gtgcctggcc aacggctcct 960
171 ggacagatat ggacacaccc agccgctgtg gtgagtagcc tcggaagccc ctcccctctt 1020
172 caagactatt ctttttccct cgcgaaactt agcattactg cttgcaagtc agcactttaa 1080
173 atccagtata ccaaaattca caaatacatt tattgaatga ctactacata agagcaattt 1140
174 tgctctgtgc ggttgagggt agtagagcta gcagcctgca cagttcattt catcctccct 1200
175 tcattaggcc actgatcatt ggcctataac attgataatt catcttgta gttattctct 1260
176 ttgaggatca ttagtggcag atgatgacaa aaaaattcta aaatgatttc atcacatttt 1320
177 tgaatacctc tgtcaccaac ccagagacca tatgcccaag aaacaaaagc cagtttaata 1380

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/622,745A

DATE: 07/15/2001

TIME: 18:53:02

Input Set : A:\SEQ. LISTING 0633 H 2174-1 WO.txt

Output Set: N:\CRF3\07152001\I622745A.raw

```

178 ttaatagaag ccaactataa taagaaaagc aaatctgatt gtgcatccaa agttatatac 1440
179 atctacatat ttcaaagcca gagaaccgcc cactgtagct gactttgaag agatcccatt 1500
180 ttgtgtgctt atagcccat cttgggttcc taaaatggta attttttttt tcttttgga 1560
181 atgtgtggat gcttgacag gtaaggagg attggaagat aggtaggcaa atccttttca 1620
182 catgtgattt tcttttagagc aggatgcttg tggacccaaa cctgcacctg agtccccctgc 1680
183 tcttttaaagg gaaagagcct tcttcaactc gctctcttct ttatttttct atctctccac 1740
184 agtccgaatc tgcctcaagt cttatttgac cctggaaaat ggggaagggtt tctgacggg 1800
185 tggggacctc ccagctctgg acggagcccg ggtggatttc cgggtggaac ccgacttcca 1860
186 tctggtgggc agtccccgga gcatctgtag tcagggccag tggagcacc ccaagcccca 1920
187 ctgccagggt gaggggaaca gctgcctgca tgcagctgat gaggacgctt gtgtgaggat 1980
188 gggagtgggg tgggaatgga taatgggaaa gaatggagag ctataaaaaat gtgggggagg 2040
189 acactggaaa ggggagatga aagtcccttt ttctccatc acctgcctca aacttctct 2100
190 tgcagteccc ggtatcctct gtaggttggg ggcttcttct ctttaccttt taaaaaaatc 2160
191 ttctgtctcc cgattcttag acctcacgtt ttctcttttc ctttatgaat ctacctctc 2220
192 tcaccttctt caggtttaaa tactccaatt ttccctttct cttaaacttag aaatttccat 2280
193 gcatcacctt cttctagaat tcacccctca ccattcctta tataattgat ttattgtaaa 2340
194 gactcagaaa taaatcaaac attctactaa gaaaaattga gaaggggagc tctgggggtg 2400
195 gaaacatatt agggtaaaag acttaaaatt ggaggcagca ttatcagaag atgaagaaca 2460
196 actcagggat ggggtgggaa gaagacagg ccttttctgk acttctctaga caacctccat 2520
197 tattccctaa ggggaatcagt gttgtgtctg tctacytttt tttttttttt tttgccacgt 2580
198 aattttacaa actctccctt ttctaggaac ccgaactctc tgccatcttc tctctggga 2640
199 tgcagtcctc ccatttgtat gctcctaact tctctaccc tggtagattc tttcaagatc 2700
200 cttgggcttt actttctca cataactcag ttattctgct tctagtttac cattttattc 2760
201 tggaaattga gagtcccatc caggggtgga cttatgacac tactgaaact tagacttcaa 2820
202 ggttctctac ctacagggcc ctcttctgt gctctaataa tatagagggc tcgatggata 2880
203 tgtgttcata tggtaacagg cttttgtaaa aattgcagaa ataagatttt aacagcaatt 2940
204 gcttaaagcc aattgtatgt gtaatttttt ttcttaaaga ctcccaattt tgtaatatc 3000
205 aggcaccaca gaaccaagat ctgccccaaa cttagctatt ggcattcccg tctcaaattc 3060
206 tgttgtccta tgaaaaatcg aagaagaaaa taagtcctga ccccttacc cccagacca 3120
207 ccttgttctt atccccaggc acctccctc cagaaacgca ggcttctgct ctccccggtc 3180
208 ttcagcatgg acaggtgtgg gagggggctg gggatcaggc caggggaagt gggcgccagt 3240
209 ggtaactctt ctctgatccc cgtctttctt gctgccagt aatcgaaagc cactctcagg 3300
210 tgagatgaga aaccttacc gcgcgcactg caatgcctc ccttctactc tgcacctcc 3360
211 acccccctga aattctgcc ttaggctacg gggcgtctc cttctgcacc ttccccacc 3420
212 caccctcagtt tgcggccacc ccttccctc cctacgtgtt tctgcctcc agtccccgtt 3480
213 ttccacgagg ctgcggtctc tcttgtccc tgcctggcta cacttccctg ggctccacct 3540
214 cctcccagac tgagcctcgc cgggtgcagg cagagcccag cagargcg cagggtgctg 3600
215 ggagaccctg agtcccacc acgttttccc ctgtggggtt ccttgcgacc ttctgtgga 3660
216 ccttttccag cctgtgcct cctaggattt cacctaattg actttctcag cctgtcccac 3720
217 ccataccaac cctggccagg cctctcgcgc tcttccccac atcttttctt tccgtgtacc 3780
218 ccttccctcg tcttttctca attccatgtc ctgtctcct ttcttaggct tctgtctacc 3840
219 cagccccagg ctcccttcca cgacccacc actccctcaa accagcctcc cttccgtacc 3900
220 caactcgttc cctccaaaac cgtttcctct cccccacatc ctacgtgctt cactgtatcg 3960
221 actcatactc ccacttcaga cctcaggcgc cagcccggt tctctccgt cccactcgca 4020
222 tcttccctt cctaccctgg ttctcctgt cttcagcctc ccgcggctcc ctccgcccac 4080
223 ccgcctctcc tggcagccc cgtccccatt tctctctccc tcgggtcccc ttaagtgaga 4140
224 tccctccctt cctcttctgt tcttctctc ctcgaggttg catccccct cccctccccg 4200
225 cccctccgac tgtcgtccc acctcggcgc tcgcttccct ccccgcccc tctctgctc 4260
226 cccagctccc gccgcgcccc ccacccccg ctgcgcgcgc ccgcccgtga cgtcagagcc 4320

```

RAW SEQUENCE LISTING

DATE: 07/15/2001

PATENT APPLICATION: US/09/622,745A

TIME: 18:53:02

Input Set : A:\SEQ. LISTING 0633 H 2174-1 WO.txt

Output Set: N:\CRF3\07152001\I622745A.raw

```
227 ccctcccagc cccacatctc cctcctgctc ctctcctcc cctcogtcgg tcagtcagtc 4380
228 cgcgaggaga gtccgcggtg gcggcgacgg tggcgagagc cgcggggggcc gtaggaagcc 4440
229 aaccttccct gcttctccgg ggcctcgcgc ccctcctccc cacaaaatca gggatggagg 4500
230 cgcctccccg gcacctctt agcagccctc cccgggaaaa gtgtccccc tgagctccta 4560
231 acgtcccca acagctaccc ctgccccca cgcc 4594
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/622,745A

DATE: 07/15/2001

TIME: 18:53:03

Input Set : A:\SEQ. LISTING 0633 H 2174-1 WO.txt

Output Set: N:\CRF3\07152001\I622745A.raw